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MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM) RF
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105041 Amendment 7

DATE: January 7, 2008

SUBJECT: Review of Analytical Data, Tier 2

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	None
SDG Nos.:	05-1730, 05-1751, and 05-1769
Laboratory:	Applied Physics & Chemistry Laboratory
Analysis:	Hexavalent Chromium
Samples:	16 Groundwater Samples (see Case Summary)
Collection Dates:	February 28, March 1 and 2, 2005
Reviewer:	Stan Kott, ESAT/Laboratory Data Consultants

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: [X] Yes [ ] No

Data Validation Report

Case No.: None
SDG Nos.: 05-1730, 05-1751, and 05-1769
Site: Omega Chem OU2
Laboratory: Applied Physics & Chemistry Laboratory
Reviewer: Stan Kott, ESAT/LDC
Date: January 7, 2008

I. CASE SUMMARY

Sample Information

SDG 05-1730 Samples:	OC2-MW4A-W-1-112, OC2-MW4B-W-5-113, C2-MW4C-W-0-114, OC2-MW4A-W-0-116, and OC2-MW5-W-0-117
SDG 05-1751 Samples:	OC2-MW8A-W-0-118, OC2-MW8B-W-0-119, C2-MW8C-W-0-120, OC2-MW8D-W-0-121, and OC2-MW9B-W-0-122
SDG 05-1769 Samples:	OC2-MW1A-W-0-123, OC2-MW1B-W-0-124, OC2-MW1B-W-1-125, OC2-MW2-W-0-126, OC2-MW6-W-0-127, and OC2-MW3-W-0-128
Concentration and Matrix:	Low Concentration Groundwater
Analysis:	Hexavalent Chromium
SOW:	EPA Method 218.6
Collection Date:	February 28, March 1 and 2, 2005
Sample Receipt Date:	February 28, March 1 and 2, 2005
Preparation Date:	February 28, March 1 and 3, 2005
Analysis Date:	February 28, March 1 and 3, 2005

Field QC

Field Blanks (FB):	Not Provided
Equipment Blanks (EB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	OC2-MW4A-W-1-112 and OC2-MW4A-W-0-116
Field Duplicates (D2):	OC2-MW1B-W-0-124 and OC2-MW1B-W-1-125

Laboratory QC

Method Blanks (MB):	MB
Associated Samples:	Samples listed above
Matrix Spike (MS)/MS Duplicate (MSD):	OC2-MW4B-W-5-113MS/MSD, OC2-MW8C-W-0-120MS/MSD, and OC2-MW3-W-0-128MS/MSD (See Additional Comments)
Duplicate:	MSDs listed above and Laboratory Control Sample Duplicate (LCSD)
Analysis:	Hexavalent Chromium

Analyte	Sample Preparation Date	Analysis Date
Hexavalent Chromium	February 28, March 1 and 3, 2005	February 28, March 1 and 3, 2005

Sampling Issues

The Chain of Custody (COC) record forms for SDGs 05-1751 and 05-1769 did not specify a sample to be used for laboratory quality control (QC). As a result, the laboratory selected sample OC2-MW8C-W-0-120 from SDG 05-1751 and sample OC2-MW3-W-0-128 from SDG 05-1769 for QC analysis. No adverse effect on data quality is expected.

Additional Comments

As directed by the EPA TOM, a Tier 2 data review of all QC results and calibrations, minus calculation check, was performed. Table 1As are not requested.

For SDG 05-1751, raw data chromatograms for field samples and laboratory QC samples were not provided in the data package. The data for SDG 05-1751 was evaluated using the laboratory summary forms provided. The chromatogram results and analysis times could not be evaluated. The effect on data quality is not known.

This report was prepared in accordance with the following documents:

- Region 9 Standard Operating Procedure 906, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Inorganic Data Packages*;
- *Methods For The Determination Of Metals In Environmental Samples*, EPA-600/4-91-010, June 1991; and
- *USEPA Method 218.6, Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography*, Revision 3.3, May 1994.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Data Completeness	Yes	
2.	Sample Preservation and Holding Times	No	A
3.	Calibration	Yes	
	a. Initial		
	b. Initial and Continuing Calibration Verification		
4.	Blanks	Yes	
5.	Laboratory Control Sample (LCS)	Yes	
6.	Duplicate Sample Analysis	Yes	
7.	Matrix Spike Sample Analysis	Yes	
8.	Field Duplicate Sample Analysis	Yes	
9.	Sample Quantitation	Yes	
10.	Overall Assessment	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The following result is estimated and should be flagged "J" because the technical holding time was exceeded.

- Hexavalent chromium in sample OC2-MW1A-W-0-123

The method 24 hour technical holding time for water was exceeded as shown below.

Sample Number	Date Collected	Time Collected	Date Analyzed	Time Analyzed	Exceeded (HH:MM)
OC2-MW1A-W-0-123	3/2/2005	09:21 AM	3/3/2005	09:53AM	00:33

The 0.023 mg/L result for sample OC2-MW1A-W-0-123 may be biased low.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.